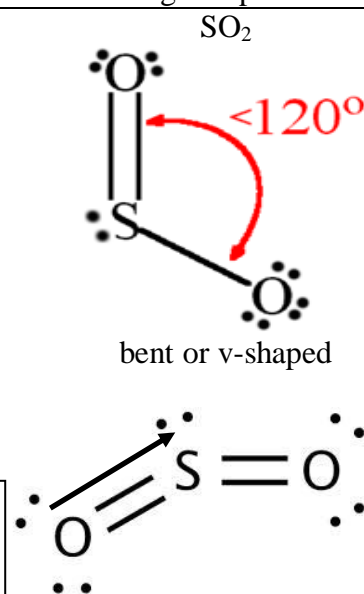
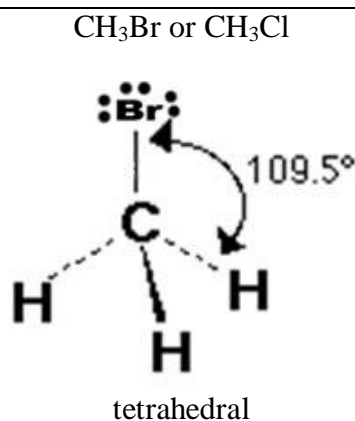
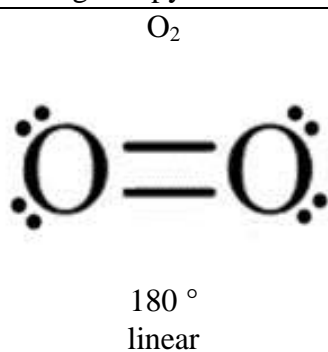
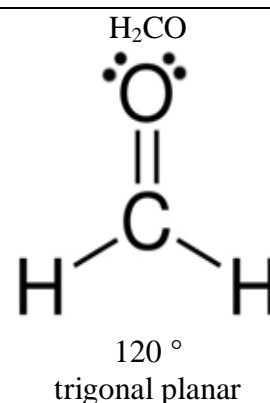
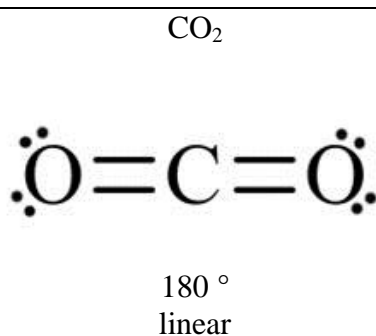
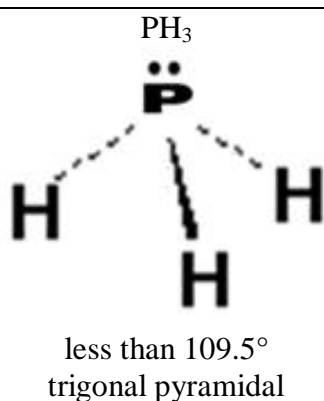
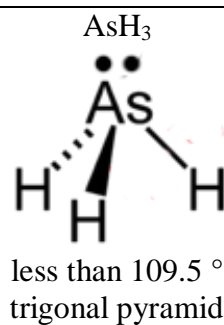
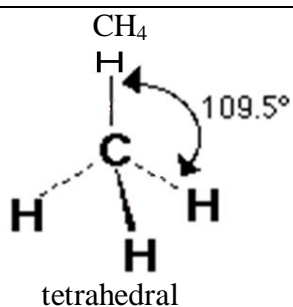
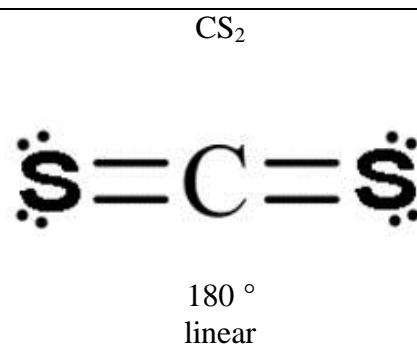
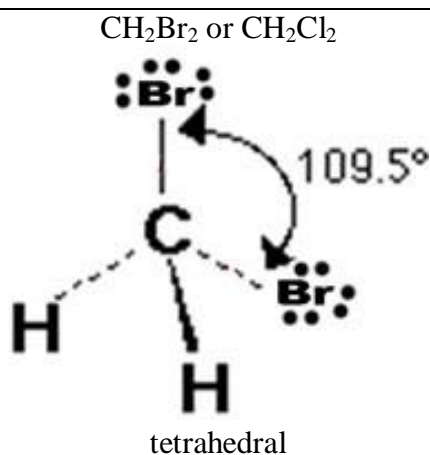
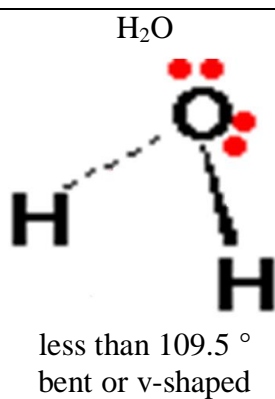
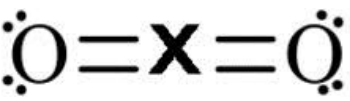
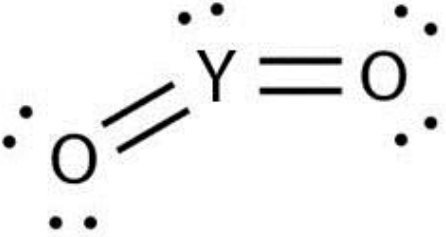
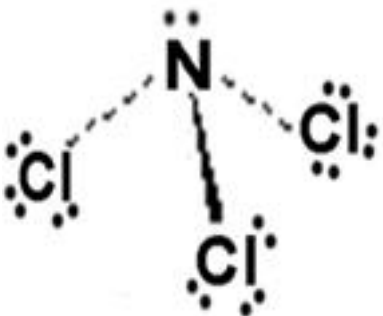
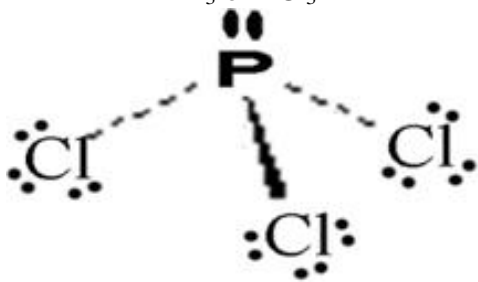
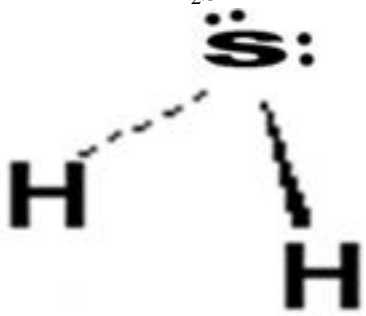
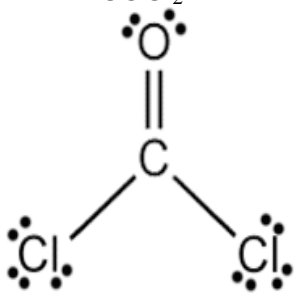
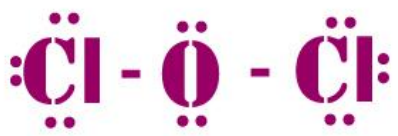
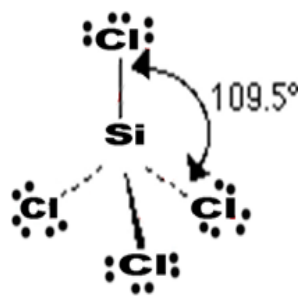


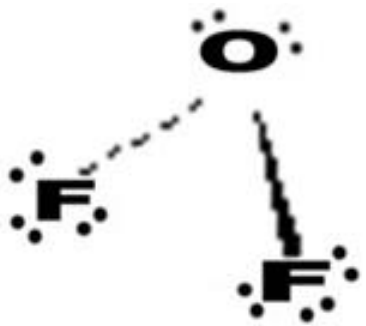


ANSWERS: Shapes of molecules



There is still debate regarding the correct structure of SO₂, most chemists suggest the S atom is an "expanded octet", this is Level 3 NCEA, so perhaps SO₂ should not have been asked about in the Level 2 Exam



<p>XO_2 (where X has 4 valence electrons)</p>  <p>180° linear</p>	<p>YO_2 (where Y has 6 valence electrons)</p>  <p>less than 120° bent or v-shaped (see note about SO_2)</p>	<p>NCl_3</p>  <p>less than 109.5° trigonal pyramidal</p>
<p>PBr_3 or PCl_3</p>  <p>less than 109.5° trigonal pyramidal</p>	<p>H_2S</p>  <p>less than 109.5° v-shaped or bent</p>	<p>COCl_2</p>  <p>120° trigonal planar</p>
<p>OCl_2 aka Cl_2O</p>  <p>less than 109.5° v-shaped or bent</p>	<p>SiCl_4</p>  <p>tetrahedral</p>	<p>HCN</p>  <p>180 degrees linear</p>
<p>SF_2</p>  <p>less than 109.5° v-shaped or bent</p>	<p>F_2O</p>  <p>less than 109.5° v-shaped or bent</p>	